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The Quality of Economic Poisons Sold In New York State In 1950

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ABSTRACT

RESULTS are reported on analyses of officially sampled agricultural insecticides and fungicides, herbicides, and household pesticides offered for sale in New York State in 1950.

A summary table is presented listing the manufacturers of economic poisons included in the 1950 inspection, together with a table of detailed analyses indicating the degree of conformity to guaranteed composition of the compounds sampled by inspectors of the State Department of Agriculture and Markets.

A scheme of classification of the economic poisons examined in 1950 is outlined and will be followed in subsequent reports for purposes of ready comparison of commodities from year to year.

The inspection service is designed to protect the interests of both users and manufacturers of economic poisons. It is apparent from the small percentage of samples found deficient that the New York State purchaser of economic poisons may expect products of high quality.

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THE QUALITY OF ECONOMIC POISONS SOLD IN NEW YORK STATE IN 1950

G. L. MACK and A. B. BUCHHOLZ[1]

THIS report deals with economic poisons officially sampled in the State of New York during the year 1950. It includes agricultural insecticides and fungicides, herbicides, and household pesticides as defined in the Agriculture and Markets law of 1947, Chapter 770, article 11, and amended in Chapter 182, laws of 1948.

A total of 220 samples containing 420 active ingredients was collected throughout the State by inspectors from the Bureau of Plant Industry of the Department of Agriculture and Markets, Albany. All chemical analyses were performed at the New York State Agricultural Experiment Station at Geneva.

The close connection thus maintained between agricultural research on the use of economic poisons and the regulation of their sale contributes to a more effective inspection service. For example, two samples containing fixed copper and parathion were found to be deficient in parathion. Although it has been claimed that this useful new combination is compatible, there was reason to believe that these and a similar sample found deficient last year had originally contained the guaranteed amount of parathion. Re-examination showed that the 1949 sample now contained still less parathion. A bio-assay, using cabbage aphids as test insect, agreed closely with the chemical analysis. These findings are being published elsewhere, but we take this opportunity to warn manufacturers and blenders of this combined insecticide-fungicide that the materials should be freshly mixed and not carried over from one year to another.

An educational program was carried out by horticultural inspectors of the Department of Agriculture and Markets to acquaint venders in all parts of the State with the provisions of the economic poisons law, and to remove as far as possible, products incorrectly labeled under the new statute. Recent surveys indicate that most of the manufacturers are now complying fully with the statute in regard to labeling,

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though there may be some old products insufficiently labeled still in the hands of vendors.

From the small number of samples found deficient, it is apparent that the New York State user of economic poisons may be assured that his interests are being well-safeguarded. Also, the ethical manufacturer is protected from competition with inferior and falsely labeled materials.

In Table 1 a summary of all samples is listed alphabetically by manufacturer's name. The detailed data in Table 2 have been grouped first according to intended use. Within the sub-groups, the samples are arranged alphabetically by manufacturer's name. This fixed order of arrangement will be adhered to in future reports in order to make any given class of compounds readily available for examination and comparison. Mixtures of two or more materials are listed once only, and under the first classified ingredient. Thus, sulfur and rotenone are classed under sulfur, while sulfur and arsenic are listed under arsenic. Soluble arsenicals and fluorides used as baits are grouped under household pesticides and listed separately from the highly insoluble arsenicals and fluorides of class I intended for use as protective agricultural insecticides.

CLASSIFICATION OF ECONOMIC POISONS LISTED IN TABLE 2

The economic poisons examined in 1950 have been classified according to the following scheme which will be adhered to in subsequent reports:

I. Agricultural Insecticides and Fungicides

A. Inorganic	1. Arsenic, Fluorine, and Mercury Compounds
	2. Copper Compounds, Sulfur, and Lime-sulfur
B. Organic	3. DDT
	4. Other Chlorinated Hydrocarbons—Lindane, Chlordane, Methoxychlor, Toxaphene, DDD, etc.
	5. Other Synthetic Organic Compounds—Phosphates, Carbamates, Oils, Dinitrophenols, etc.
	6. Plant Insecticides—Rotenoids, Pyrethrins, Vegetable Oils, Nicotine, and other Alkaloids

II. Herbicides	7. Weed Killers
A. Inorganic	Chlorates, Sulfamates, Cyanates, and Thiocyanates
B. Organic	2,4-D and other Oxyacetic Acid Derivatives
III. Household Pesticides	8. Miscellaneous Insecticides
A. Rodenticides	Phosphorous, Barium, Soluble Arsenicals, and Fluorides and Coumarin Derivatives
B. Fly Sprays	Organic Thiocyanates and Pyrethrins
C. Ant Poisons	Antu, Thallium, and Antimony Compounds
D. Louse and Roach Powders and Pastes	Rotenone, Sulfur, Borates, and Phenols
E. Moth Repellents	Naphthalene and Para-dichlorobenzene

TABLE 1.—SUMMARY OF ECONOMIC POISONS TESTED IN NEW YORK STATE IN 1950 ARRANGED ALPHABETICALLY BY MANUFACTURER'S NAME.

MANUFACTURER	TOTAL NO. SAMPLES	NO. BELOW GUARANTEE
Acme White Lead and Color Works, 8250 St. Aubin Ave., Detroit 1, Mich	6	0
American Chem. Paint Co., Ambler, Pa	1	0
Atlas Powder Co., Wilmington 99, Delaware	1	0
Bacon, John Inc., Gasport, N. Y.	8	2
Barker Chemical Corp., Barker, N. Y.	2	1
Bonide Chem. Co., Inc., 382 N. Genesee St., Utica 4, N. Y.	16	1
Boyle-Midway, Inc., 257 Cornelison Ave., Jersey City 2, N. J.	1	0
California Spray Chem. Corp., Richmond, Calif.	3	1
Carbola Chem. Co., Natural Bridge, N. Y.	7	1
Central Chem. Corp., Hagerstown, Md.	3	0
Chipman Chem. Co., Inc., Bound Brook, N. J.	2	0
Cloverset Flower Farm, Kansas City 5, Mo.	1	1
Colwell Chemical Co., Lima, N. Y.	2	2
Davis, C. H. Co., Rome, N. Y.	2	0
Davis, O. D. Chem. Co., Erie, Pa.	1	0
The Dill Co., Washington St. and McKinley Ave., Norristown, Pa.	4	1
Doggett-Pfeil Co., 642 Morris Turnpike, Springfield, N. J.	1	1
Dow Chemical Co., Midland, Mich.	5	1
E. I. duPont de Nemours and Co., Wilmington 98, Del.	16	1
Edco Corp., Elkton, Md.	2	2
Exterminating Products Corp., Livonia, N. Y.	1	1
First Aid Remedies Co., Buffalo 17, N. Y.	1	1
General Chemical Co., 40 Rector St., New York, N. Y.	1	0
General Drug Co., New York, N. Y.	1	0
General Insecticide Co., Utica, N. Y.	3	2
The Glidden Co., Cleveland 2, Ohio	1	0
G. L. F. Cooperative Soil Bldg. Service, Ithaca, N. Y.	13	1
Gulf Oil Corp., Gulf Bldg., Pittsburgh 30, Pa.	1	0
Hammond Paint and Chem. Co., 6 Main St., Beacon, N. Y.	3	0
G. C. Hanford Mfg. Co., Inc., Syracuse, N. Y.	2	1
The Holmerden Co., Stamford, Conn	1	0
Hydro Fumigating Service, 8 Dunn Ave., Jamestown, N. Y.	1	1
Ideal Remedies Co., Buffalo 9, N. Y.	1	0
Interstate Chem. Mfg. Co., 35 N. 6th St., Reading, Pa.	1	0
Jones Products Co., Milwaukee, Wisconsin	1	1
Linck, O. E., Inc., Route 6 and Valley Road, Clifton, N. J.	2	1
Lucas, John and Co.,322 Race St.,Philadelphia 5, Pa.	1	0
Mechling Bros. Chemicals, Div. of General Chem. Co., 12 S. 12th St., Philadelphia, Pa.	3	3
Murray, Edgar A. Co., 2703 Guoin St., Detroit 7, Mich	1	0
Niagara Chemical Div., Food Machinery and Chem. Corp., Middleport, N. Y.	37	5

TABLE 1.—*Concluded.*

MANUFACTURER	TOTAL NO. SAMPLES	NO. BELOW GUARANTEE
Oneida Chem. Co., Utica, N. Y.	1	1
Opitz, John, Inc.,50 39th St., Long Island City, N.Y.	1	0
Parrott Chem. Co., Stamford, Conn.	2	0
Pennsylvania Salt Mfg. Co., 1000 Widener Bldg., Philadelphia 7, Pa.	3	0
Peterman, Wm., Inc., 56 Ferry St., Newark 5, N. J.	3	1
Pfeiffer, S. Mfg. Co., St. Louis, Mo.	1	1
Plant Products Corp.,Kennedy Ave., Blue Point, N.Y.	8	6
Pratt, B. G. Co., 160 Moore St., Hackensack, N. J.	1	1
Pratt Food Co., 130 Walnut St., Philadelphia 6, Pa.	1	0
Ralston Purina Co., 835 S. 8th St., St. Louis, Mo.	4	1
Rex Research Corp., 600 Montrose Ave., Toledo 7, Ohio	2	1
Rodent Control Fund, Mass. State College, Amherst, Mass.	1	0
Rohm and Haas Co., Inc., 222 W. Washington Square, Philadelphia 5, Pa.	1	0
Rose Mfg. Co., Philadelphia, Pa.	1	0
Rotenone Products Co., Inc., 110 Eaton Place, East Orange, N. J.	1	0
Sears, Roebuck and Co., 925 S. Homan Ave., Chicago 7, Ill.	17	7
Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland, Ohio	5	2
Spencer Bros., Inc., Dundee, N. Y.	1	0
St. Lawrence Chem. Co., Ogdensburg, N. Y.	1	0
Tobacco By Products and Chem. Corp., 401 E. Main St., Richmond, Va.	1	0
Wilson, Andrew Corp., Springfield, N. J.	1	0
Wright Supply Corp., Riverhead, N. Y.	3	1

TABLE 2.—DETAILED ANALYSES OF ECONOMIC POISONS, 1950.

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
I. AGRICULTURAL INSECTICIDES AND FUNGICIDES					
A. Inorganic: 1. Arsenic, Fluorine, and Mercury Compounds*					
ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.					
Acme Tomato Dust	Canandaigua, 1742	Total arsenic	4.80	6.00	
		Water-soluble arsenic	0.25	0.06	
		Copper	15.00	19.70	
Acme All Round Spray	Newark, 1716	Total arsenic	2.80	2.96	
		Water-soluble arsenic	0.30	0.06	
		Copper	11.00	11.81	
		Nicotine	40.00	44.50	
JOHN BACON CORP., GASPORT, N. Y.					
C–2 Tri-Basic Copper Calcium Arsenate	Gasport, 1285	Total arsenic	2.60	2.53†	
		Water-soluble arsenic	0.50	0.17	
		Tri-calcium arsenate	7.00	——	
		Copper	4.20	4.54	
		Tri-basic copper sulfate	7.80	——	
CENTRAL CHEMICAL CORP., HAGERSTOWN, MD.					
Farmrite-Arsenate of Lead	Fort Plain, 640	Total arsenic	19.56	20.59	
		Water-soluble arsenic	0.25	0.09	
DOGGET PFEIL CO., SPRINGFIELD, N. J.					
Tomato Dust	Auburn, 398	Total arsenic	5.20	5.50	
		Water-soluble arsenic	0.50	0.80†	
		Tri-calcium arsenate	14.00	——	
		Copper	7.00	7.59	

DOW CHEMICAL CO., MIDLAND, MICH.					
Dow Paris Green	Elmira, 992	Total arsenic	37.80	43.52	
		Water-soluble arsenic	2.60	0.62	
		Copper	21.30	26.00	
E. I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL.					
Du Pont 10% Calcium Arsenate 7% Copper A Compound Dust	Lyndonville, 1270	Total arsenic	2.60	3.09	
		Water-soluble arsenic	0.50	0.03	
		Calcium arsenate	6.90	——	
		Copper	3.15	3.32	
GENERAL CHEMICAL CO., NEW YORK, N.Y.					
Orchard Brand Paris Green	Kingsferry, 400	Total arsenic	37.87	41.83	
		Water-soluble arsenic	2.65	1.33	
		Copper	23.90	25.84	
MECHLING BROS. CHEMICALS, NEW YORK, N. Y.					
Hydroxide-Double Duty Spray for Potatoes	Stanley, 1910	Total arsenic	10.43	11.16	Copper fungicide is partly blackened rendering it possibly of little fungicidal value
		WATER SOLUBLE ARSENIC	1.50	3.00‡	
		Copper	12.75	12.95	
		Tri-calcium arsenate	27.71	——	
Hydroxide-Double Duty Spray for Potatoes	Cobleskill, 1561	Total arsenic	10.43	11.20	Copper fungicide is partly blackened rendering it possibly of little fungicidal value
		WATER SOLUBLE ARSENIC	1.50	2.60‡	
		Copper	12.75	12.96	
		Tri-calcium arsenate	27.71	——	
Mechling Paris Green	Granville, 650	Total arsenic	37.87	43.20	
		WATER SOLUBLE ARSENIC	2.65	4.10‡	
		Copper	23.50	26.60	
NIAGARA CHEMICAL DIVISION, MIDDLEPORT, N. Y.					
Niagara Kolo Fruit Tree Dust or Spray	Lyons, 1748	Total arsenic	2.10	2.58	
		Water-soluble arsenic	0.50	0.12	
		Basic lead arsenate	15.00	——	
		DDT	7.50	7.50	
		Sulfur	52.00	52.90	

*For the sake of uniformity, inorganic materials are reported as the element and never as the metallic oxide. It should be noted that water-soluble arsenic carries a minimum guarantee so that, in this case only, a guarantee of *not more than* the specified amount is understood.

†Designates those samples which do not fully meet their guarantee but are less than 5 per cent deficient.

‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
Niagara Carbamate Apple Dust Niatox 5 Code 293	Middleport, 1293	Total arsenic	2.92	3.33	
		Water-soluble arsenic	0.50	0.49	
		DDT	5.00	8.00	
		Ferbam	7.00	7.43	
		Standard lead arsenate	15.00	——	
Niagara C.O.C.S. Cuke and Melon Dust	Hall, 1724	Total arsenic	1.95	2.29	
		Water-soluble arsenic	0.50	0.07	
		Tri-calcium arsenate	5.25	——	
		Copper	5.00	5.68	
Niagara Potatox Potato Dust or Spray	Interlaken, 1901	Total arsenic	13.00	13.60	
		Water-soluble arsenic	0.50	0.04	
		Copper	7.00	7.55	
		Tri-calcium arsenate	35.00	——	
		DDT	5.00	5.19	
Pomo Green with Nicotine	Seneca Falls, 1902	Total arsenic	1.36	1.57	
		Water-soluble arsenic	0.50	0.10	
		Lead arsenate	9.50	——	
		Sulfur	60.00	63.10	
		Nicotine	2.00	2.00	
SEARS, ROEBUCK AND CO., CHICAGO, ILL. Garden Master-Calcium Arsenate	Newburgh, 1377	Total arsenic	26.00	25.45†	
		WATER SOLUBLE ARSENIC	0.49	3.75‡	
		Tri-calcium arsenate	70.00	——	
A. Inorganic: 2. Copper Compounds, Sulfur, and Lime-sulfur					
ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICHIGAN Acme Bordeaux Mixture	Elmira, 991	Copper	12.75	12.76	

JOHN BACON INC., GASPORT, NEW YORK					
D.D.T.A.—3C Dust	Gasport, 1284	Basic copper sulfate	13.00	——	
		Copper	7.00	8.60	
		DDT	3.00	3.33	
BARKER CHEMICAL CORP., BARKER, NEW YORK					
Grape Dust	Barker, 1268	Copper	7.00	12.13	
		DDT	5.00	4.80†	
Barker Lime Sulfur Solution	Barker, 1269	Calcium polysulfide	29.75	31.10	
		Calcium thiosulfate	3.20	1.65	
BONIDE CHEMICAL CO., UTICA, NEW YORK					
Coprqure	Manchester, 1908	Copper oxychloride	10.10	——	
		Copper	6.00	8.88	
Bonide De-T-Cop Potato Dust	Canandaigua, 1743	Copper oxychloride	12.00	——	
		Copper	7.00	7.62	
		DDT	3.00	3.48	
Tomato-Tomato Dust Insecticide-Fungicide	Canandaigua, 1745	Copper oxychloride	12.00	——	
		Copper	——	8.58	
		DDT	3.00	3.26	
		Cube resins (including rotenone)	0.68	P	
		Methyl naphthalenes	0.85	P	
Bonide Tree Tox Fruit Tree Spray	Canandaigua, 1704	Sulfur	33.40	36.66	Total chlorine calculated from the percentage chlordane and DDT guaranteed
		Chlordane	6.60	——	
		DDT	6.60	——	
		Ferbam	5.09	5.39	
		Total chlorine	7.56	8.76	
Tree-Tox	Utica, 1758	Sulfur	33.40	34.35	Total chlorine calculated from the percentage chlordane and DDT guaranteed
		Chlordane	6.60	——	
		DDT	6.60	——	
		Ferbam	5.09	6.60	
		Total chlorine	7.56	7.77	

†Designates those samples which do not fully meet their guarantee but are less than 5 per cent deficient.
‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.
P Denotes presence of guaranteed materials.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
CARBOLA CHEMICAL CO., NATURAL BRIDGE, N. Y.					
"Louse Killer" for Cattle and Poultry	Depauville, 1762	Sulfur	15.00	16.00	
		Sodium fluo-silicate	10.00	9.50†	Calculated from fluorine found
		Rotenone	0.40	P	
		Other cube resins	1.05	P	
		Beta thiocyano ethyl esters of mixed fatty acids	0.75	P	
		Fluorine	——	5.65	
C.C.C. 3–6 Insect Killer and Fungicide Dust	Waterloo, 1710	Copper	6.00	6.35	
		DDT	3.00	3.23	
C.C.C. Copper Rote	Waterloo, 1709	Copper	6.00	7.64	
		Beta thiocyano ethyl esters of aliphatic fatty acids	0.75	P	
		Rotenone	0.40	P	
		Other cube resins	1.05	P	
C.C.C.-Copper Rote	Cooperstown, 638	Copper oxychloride sulfate	6.00	——	Copper oxychloride sulfate should be 12% or more on the basis of metallic copper found
		Rotenone	0.40	P	
		Derris resins	1.05	P	
		Beta thiocyano ethyl esters of fatty acids	0.75	P	
		Copper	——	6.43	
CENTRAL CHEMICAL CORP., LEBANON, PA.					
Ro-Cop	Delmar, 646	Copper	5.00	6.21	
		Rotenone	0.75	P	
		Ether extractives	1.50	P	
CHIPMAN CHEMICAL CO., BOUND BROOK, N. J.					
Copper-Hydra-Bordo	Glen Falls, 1554	Copper	13.00	13.26	

CLOVERSET FLOWER FARM, KANSAS CITY, MO.				
Clotracide Rose Powder	Allegany, 346	Sulfur	30.00	31.70
		Tech. chlorinated camphene	13.00	13.40
		FERBAM	5.60	0.50‡
THE DILL COMPANY, NORRISTOWN, PA.				
Dill's Insecticidal, Fungicidal Garden Dust	Ontario, 1731	Copper	7.00	7.61
		Rotenone	0.75	P
		Other cube resins	1.47	P
		Sulfur	10.00	11.26
		DDT	2.00	2.20
E. I. DU PONT DE NEMOURS CO., WILMINGTON, DEL.				
3% DDT–15% Copper—A Compound Dust	Lyndonville, 1261	*COPPER AS METALLIC*	6.75	4.70‡
		DDT	3.00	2.57†
2% DDT–15% Copper—A Compound Dust	Lyndonville, 1265	Copper	6.75	7.27
		DDT	2.00	2.41
Dupont Floral Dust	Sodus, 1737	Sulfur	26.20	28.46
		Methoxychlor (tech.)	5.00	7.28
		Ferbam	7.60	8.51
		Rotenone	0.75	P
		Other cube resins	1.20	P
Dupont Dry Lime Sulfur	Newark, 1905	Calcium polysulfide	70.00	74.00
		Calcium thiosulfate	5.00	7.47
		Free Sulfur	5.00	4.70
Dupont Lime Sulfur Solution	Lyndonville, 1260	Calcium polysulfide	30.00	31.20
		Calcium thiosulfate	——	1.55
		Baume gravity	32° at 60° F	32°
EDCO CORP., ELKTON, MD.				
Edco 1–D	Riverhead, 1474	Copper	7.00	7.43
		PARATHION	1.00	0.08‡

†Designates those samples which do not fully meet their guarantee but are less than 5 per cent deficient.
‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.
P Denotes presence of guaranteed materials.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
GENERAL INSECTICIDE CO., UTICA, N.Y.					
General Gen-Cop Garden Dust	Naples, 1717	Copper	4.15	5.86	
		Cuprous oxide	4.65	6.56	Cuprous oxide calculated from metallic copper found
		DDT	3.00	3.14	
		Rotenone	0.75	P	
		Other active cube extractives	1.50	P	
G. L. F. SOIL BUILDING SERVICE, ITHACA, N. Y.					
G. L. F. Toxi-Film Dust No. 15	Hicksville, 1464	Monohydrated copper sulfate	19.50	21.69	Calculated from metallic copper found
		Copper	——	7.61	
G. L. F. Toxi-Film Dust No. 120	Hicksville, 1465	Copper	7.00	7.33	
		DDT	5.00	5.02	
G. L. F. No. 118	Batavia, 1272	Copper	7.00	8.05	
		DDT	3.00	3.30	
HAMMOND PAINT AND CHEMICAL CO., BEACON, N. Y.					
Hammond Grape and Rose Dust	Binghamton, 997	Copper sulfate	2.50	2.84	Calculated from metallic copper found
		Copper	——	0.70	
		Sulfur	64.00	69.90	
INTERSTATE CHEMICAL MFG., CO., READING, PA.					
Improved Bug Death	Hudson Falls, 1533	Sulfur	20.00	21.82	
		Rotenone	0.20	P	
		Cube extractives	0.53	P	
		Nicotine	0.50	0.50	

JOHN LUCAS AND COMPANY, INC., PHILADELPHIA, PA.					
Mexican Bean Beetle Dust	Sodus, 1735	Sulfur	15.00	16.82	
		Rotenone	0.75	P	
		Other cube resins	1.50	P	
NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
C.O.C.S. Copodust	Cato, 396	Copper	6.00	6.67	
C.O.C.S. Copodust	Hall, 1725	Copper	6.00	7.10	
C.O.C.S. Copper-Rotenone Bearing Dust	Middleport, 1314	Copper	5.00	5.26	
		Rotenone	0.75	P	
		Other cube resins	0.75	P	
C.O.C.S. Phos Kil Dust J–306	Middleport, 1301	Copper	6.00	6.74	
		PARATHION	1.00	0.30‡	
C.O.C.S. Copper-Rotenone Bearing Dust	Palmyra, 1906	Copper	5.00	5.66	
		Rotenone	0.75	P	
		Other cube resins	0.75	P	
Kolofog–1.00 Code 281	Middleport, 1304	Sulfur	27.80	30.05	
		2,3 DICHLOR-1,4 NAPHTHO-QUINONE	3.50	1.97‡	
		Total chlorine	——	0.615	
Rotenone-Bearing Niatox 3 Dust	Middleport, 1302	Sulfur	40.00	45.10	
		DDT	3.00	3.14	
		Rotenone	0.50	P	
		Other cube resins	0.50	P	
Kolocide-code 278	Middleport, 1306	Sulfur	4.60	5.95	Total chlorine calculated from percentage DDT and gamma isomer benzene hexachloride
		DDT	32.60	——	
		Gamma isomers of benzene hexachloride	3.50	——	
		Total chlorine	18.86	20.18	
Rotenone-Bearing Dust Code 402	Middleport, 1289	Sulfur	25.00	29.15	
		Rotenone	0.75	P	
		Other cube resins	0.75	P	
Kolodust Phos Kill 1-Dust	Middleport, 1300	Sulfur	77.00	80.10	
		Parathion	1.00	1.06	

‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.
P Denotes presence of guaranteed materials.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
Dry Lime Sulfur	Lyons, 1749	Calcium polysulfide	70.00	67.00†	
		Calcium thiosulfate	5.00	5.30	
		Free sulfur	5.00	7.84	
THE PARROTT CHEMICAL CO., STAMFORD, CONN.					
Lucky Strike Dust	Binghamton, 998	Sulfur	15.00	16.22	
		Rotenone and other derris resins	0.75	P	
		Beta thiocyano-ethyl esters of alipathic fatty acids	1.00	P	
Lucky Strike Insecticide and Fungicide	Genoa, 1751	Sulfur	15.00	16.36	
		Rotenone	0.75	P	
		Other cube resins	2.00	P	
PLANT PRODUCTS CORP., BLUE POINT, N. Y.					
Protexall Garden Dust	Blue Point, 1469	Sulfur	20.00	19.00†	
		DDT	5.00	10.82	
		Rotenone	1.00	P	
		Other derris resins	2.00	P	
		Ferbam	5.00	4.68†	
Protexall Garden Spray		Sulfur	18.00	18.00	
		DDT	20.00	30.00	
		ROTENONE	3.00	0.00‡	
		FERBAM	30.00	23.90‡	
J. P. and Rose Dust Jackson and Perkins Co.	Blue Point, 1461	Copper	——	0.266	
		Copper 8 quinolinolate	1.00	1.47	Copper 8 quinolinolate calculated from metallic copper found
		Rotenone	1.00	P	
		Other cube resins	2.00	P	
		Ferbam	7.00	7.41	
		DDT	5.00	4.08‡	
		SULFUR	20.00	16.50‡	

Plant Mildew Spray	Blue Point, 1462	Copper 8 quinolinolate	25.00	22.70†	Copper 8 quinolinolate calculated from metallic copper found
		Malachite green	2.00	P	
		Copper	——	4.16	
RALSTON PURINA CO., ST. LOUIS, MO.					
Purina Garden Dust	Cobleskill, 1560	Tri-basic copper sulfate	11.50	13.10	Tri-basic copper sulfate calculated from metallic copper found
		Copper	——	6.92	
		Beta-beta-dithiocyano diethyl ether	1.80	P	
		Sodium fluoaluminate	29.70	30.07	Sodium fluoaluminate calculated from fluorine found
		Fluorine	——	16.57	
ROSE MANUFACTURING CO., PHILADELPHIA, PA.					
Fungtrogen	Binghamton, 999	Copper	0.42	0.43	
		Nickel	0.39	0.54	
SEARS, ROEBUCK AND CO., CHICAGO, ILL					
Garden Master Potato Spray	Elmira, 1801	Copper	25.00	31.00	
		DDT	12.00	8.70‡	
Garden Master Insecticide—Fungicide Garden Spray	Jamestown, 336	Copper	20.00	20.25	
		Cube extractive	4.50	P	
		Rotenone	——	P	
Cross Country Rose Spray	Elmira, 1804	Sulfur	10.00	10.03	
		DDT	2.00	2.60	
		ROTENONE	0.25	0.00‡	
		Other cube resins	.50	——	
		FERBAM	7.60	6.66‡	
		Tech. piperonyl cyclonene	.50	——	
Cross Country Gladiolus Spray	Buffalo, 1256	DDT	10.00	10.63	
		Sulfur	19.50	19.50	
		Zinc ethylene bisdithiocarbamate	9.70	10.65	
		Zinc	2.30	2.54	
THE SHERWIN-WILLIAMS CO., CLEVELAND, OHIO					
Pestroy Products Cucumber and Melon Dust	Newark, 1746	Copper	5.00	6.23	
		DDT	3.00	3.44	

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P Denotes presence of guaranteed materials.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
Pestroy Products	Newark, 1713	Calcium polysulfide	65.00	64.20†	
Dry Lime Sulfur		Calcium thiosulfate	5.00	6.74	
		Sulfur	5.00	9.60	
Pestroy Products	Newark, 1715	Sulfur	37.00	37.75	
Fruit Spray		Zinc dimethyl dithio-carbamate-zerlate	10.50	11.47	
		Tech. chlordane	8.00	——	Total chlorine calculated from percentage DDT and chlordane guaranteed
		DDT	7.50	——	
		Total chlorine	8.91	12.93	
ST. LAWRENCE CHEMICAL CO., OGDENSBURG, N. Y.					
C–EM–DIE	Cato, 397	Sabadilla dust	20.00	——	
		Pyrethrin flowers	15.00	——	
		Sulfur	10.00	14.26	
		Sabadilla	——	P	
		Pyrethrins	——	P	
WRIGHT SUPPLY CORP., RIVERHEAD, N. Y.					
1–10 Dust	Riverhead, 1473	Copper	5.20	4.85†	
		Rotenone	1.00	P	
3–15–82 Potato Dust	Riverhead, 1472.	Basic copper	15.00	——	
		Copper	7.80	8.20	
		DDT	3.00	3.39	
		B. Organic: 3. DDT			
ACME-WHITE LEAD AND COLOR WORKS, DETROIT, MICH.					
Acme Dura Dust	Troy, 1558	DDT	50.00	50.20	
JOHN BACON CORP., GASPORT, N. Y.					
DDT 4–3 Dust 6–94	Gasport, 1287	DDT	2.80	2.80	
DDT A-2 Dust	Gasport, 1281	DDT	2.00	3.27	

DDT A-5 Dust 10–90	Gasport, 1282	DDT	4.70	4.49†
Dithane Dust with DDT	Gasport, 1280	DDT	3.00	3.12
		Zinc ethylene bis-dithiocarbamate	3.50	5.45
BONIDE CHEMICAL CO., UTICA, N. Y.				
Bonide New Dust	Manchester, 1907	DDT	5.00	5.09
Bonide Zidual-Residual Spray	Canandaigua, 1744	DDT	5.00	7.25
		Petroleum naphtha	——	——
BOYLE-MIDWAY, INC., JERSEY CITY, N.J.				
Ridz Garden Spray	Schenectady, 645	DDT	10.00	11.45
		Petroleum oil unsulfonated residue	80.00	——
CARBOLA CHEMICAL CO., INC., NATURAL BRIDGE, N. Y.				
C.C.C. 3% DDT Garden Dust	Dunkirk, 343	DDT	3.00	3.49
E. I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL.				
Du Pont Deenate 50-W	Seneca Falls, 1903	DDT	50.00	50.00
Du Pont Deenate 10-x	Auburn, 1755	DDT	10.00	11.28
10% DDT Insect Dust	Sodus, 1736	DDT	10.00	11.88
		Pyrethrins	0.20	P
		Rotenone	1.00	P
		Other cube resins	1.60	P
2% DDT—1% Rotenone Dust	Lyndonville, 1264	DDT	2.00	2.52
		Rotenone	1.00	P
		Other cube resins	1.60	P
GENERAL INSECTICIDE CO., UTICA, N. Y.				
General Ridzum Insect Powder	Forestville, 340	DDT	10.00	9.50†
THE GLIDDEN CO., CLEVELAND 2, OHIO				
Glid-N 5% Dust	1726	DDT	5.00	5.94
		Isobornyl thiocyano acetate	0.82	——
		Other active terpenes	0.18	——
		Petroleum distillate	94.00	——
		Organic thiocyanate	——	P

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TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
G.I.F. SOIL BUILDING SERVICE, ITHACA, N. Y.					
Dust No. 17 Potato Dust D-3	Hicksville, 1463	DDT	3.00	3.43	
Dust No. 60	Batavia, 1278	DDT	5.00	5.14	
Dust No. 9	Batavia, 1274	DDT	3.00	3.70	
		Parathion	1.00	1.00	
Dust No. 11	Batavia, 1279	DDT	3.00	3.64	
		Zinc ethylene bisdithiocarbamate	6.50	9.20	
HAMMOND PAINT AND CHEMICAL CO., BEACON, N. Y.					
Hammond's Dikilz Dust	Schenectady, 639	DDT	3.00	3.76	
NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
Niatox 5 Dust Code 814	Middleport, 1288	DDT	5.00	5.38	
Niatox 3 Dust Code 813	Middleport, 1294	DDT	3.00	3.08	
Fruit, Vegetable and Flower Dust Code 916	Middleport, 1312	DDT	3.00	3.29	
Niatox 1.5 Dust Impregnated Code 294	Middleport, 1298	DDT	1.50	1.87	
		Polymethylated-naphthalenes	2.70	——	
PLANT PRODUCTS CORP., BLUE POINT, N. Y.					
DDT 5% Dust	Blue Point, 1470	DDT	5.00	4.50†	
Cross Country Evergreen Spray (Made for Sears, Roebuck and Co.)	Blue Point, 1467	DDT	20.00	20.44	
		AZOBENZENE	70.00	65.50‡	
PENNSYLVANIA SALT MFG. CO., PHILADELPHIA, PA.					
"Knox Out" Insecticide Powder	Marathon, 1753	DDT	10.00	10.73	
"Knox Out" Garden Dust	Johnstown, 643	DDT	3.00	5.63	

WILLIAM PETERMAN INC., NEWARK, N.J.				
Peterman Discovery	Binghamton, 1808	DDT	2.00	2.34
		Lethane 384 containing 54% organic thiocyanates	0.75	0.81
		Aromatic hydrocarbons oils	4.68	P
		Petroleum distillate	92.57	P
PRATT FOOD CO., PHILADELPHIA, PA.				
Pratt's Lice Killer with DDT	Marion, 1723	DDT	0.50	1.99
		Beta, beta-dithiocyano diethyl ether	0.90	1.87
RALSTON PURINA CO., ST. LOUIS, MO.				
Purina Insect Killer	Genoa, 1752	DDT	10.00	9.70†
		Rotenone	1.67	P
		Other cube resins	2.83	P
Purina Insect Killer	Batavia, 1255	DDT	10.00	11.30
		Rotenone	1.67	P
		Other cube resins	2.83	P
REX RESEARCH CORP., TOLEDO, OHIO				
Fly-Tox Aerosol Insect Bomb	Waterloo, 1712	DDT	2.00	2.02
		Piperonyl butoxide tech.	1.60	——
		Pyrethrins	0.20	P
		Mineral hydrocarbon distillate	16.20	——
SEARS, ROEBUCK AND CO., CHICAGO, ILL.				
Cross Country Insect Dust	Gloversville, 642	DDT	5.00	5.00
Cross Country Evergreen Spray	Newburgh, 1374	*DDT*	20.00	18.70‡
		AZOBENZENE	70.00	62.00‡
B. Organic: 4. Chlorinated Hydrocarbons				
ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.				
6% Chlordane Dust	Auburn, 1756	Tech. chlordane	6.00	6.56

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TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
BONIDE CHEMICAL CO., UTICA, N. Y.					
Bonide Cutworm Dust	Canandaigua, 1705	*TECH. CHLORDANE*	10.00	8.70‡	
CENTRAL CHEMICAL CORP., LEBANON, PA.					
Klor-Dust	Saratoga Springs, 1557	Tech. chlordane	5.00	5.10	
E. I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL.					
Vegetable Garden Dust	Sodus, 1738	Methoxychlor, tech.	5.00	6.08	
		Zinc ethylene bisdithiocarbamate	5.20	8.30	
		Zinc	1.20	1.98	
		Rotenone	0.75	P	
		Other cube resins	1.20	P	
G.L.F. SOIL BLDG SERVICE, ITHACA, N. Y.					
G.L.F. Dust No. 25	Batavia, 1271	Chlorodane	5.00	4.30†	
O. E. LINCK CO. INC., CLIFTON, N. J.					
Tat Chloro	Binghamton, 996	Tech. chlordane	24.00	23.70†	
NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
Diatox 50 Wettable Powder	Middleport, 1290	DDD	50.00	51.03	
Gam Kil 1 Dust Code 33	Middleport, 1292	Gamma isomer of benzene hexachloride	1.00	——	
		Total benzene hexachloride	——	1.05	
B.H.C. 3 Dust Code 67	Middleport, 1295	Gamma isomers of benzene hexachloride	3.00	——	
		Other isomers of benzene hexachloride	20.00	——	
		Total benzene hexachloride	23.00	21.70†	

B.H.C. 1.2 Dust Code 899	Middleport, 1296	Gamma isomers of benzene hexachloride	1.20	——
		Other isomers of benzene hexachloride	8.00	——
		Total benzene hexachloride	9.20	9.29
Chlor Kil 40 Spray Code 134	Middleport, 1303	Tech. chlordane	40.00	42.37
B.H.C. Crop Spray Code 976	Middleport, 1307	Gamma isomer of benzene hexachloride	6.00	——
		Other isomers of B.H.C.	40.00	——
		Total benzene hexachloride	46.00	47.33
Gam Kil 25 Spray Code 934	Middleport, 1311	Gamma isomers of benzene hexachloride	25.00	——
		Total benzene hexachloride	——	25.07
Chlordane Dust or Spray Code 929	Middleport, 1313	Tech. chlordane	6.00	6.12
Chlordane Dust or Spray	Elmira, 989	Tech. chlordane	6.00	5.70†
PENNSYLVANIA SALT MFG. CO., PHILADELPHIA, PA.				
Penco Hi-Gam, W-25	Utica, 1759	Gamma isomers of benzene hexachloride from benzene	25.00	26.92
WILLIAM PETERMAN INC., NEWARK, N.J.				
Petermans Quick-Kil	Binghamton, 1807	Tech. chlordane	2.00	2.72
		Petroleum distillate	95.69	P
		Organic thiocyanates	2.05	2.94
		Essential oils	0.26	——
ROHM AND HAAS CO., PHILADELPHIA, PA.				
Rothane W.P.–50	Alton, 1734	DDD	50.00	52.81
THE SHERWIN-WILLIAMS CO., CLEVELAND, OHIO				
Pestroy Products Lawn Insect Killer	Newark, 1714	Tech. chlordane	40.00	37.70†

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TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
		B. Organic: 5. Other Synthetic Organics			
CALIFORNIA SPRAY-CHEMICAL CORP., ELIZABETH, N. J.					
Ortho Scientific Pest Control Vapotene Dust No. 66	Riverhead, 1476	*TETRAETHYL PYROPHOSPHATE*	1.00	0.0‡	This material may have decomposed in storage, since the packages are not moisture proof
		Other ethyl phosphates	1.50	Trace	
		Phosphorus as elemental	0.60	0.92	
Vapophos Dust No. 10	Lyndonville, 1266	Parathion	1.00	1.00	
DOW CHEMICAL CO., MIDLAND, MICH.					
Dow Ferradow-A Fungicide	Alton, 1733	Ferbam	76.00	76.90	
Dow DN-Dry Mix	Naples, 1718	Dinitro-o-cresol	40.00	45.00	
Parathion 15% Wettable Powder	Lockport, 1259	Parathion	15.00	13.50†	
E. I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL.					
Fermate-Du Pont	Seneca Falls, 1904	Ferbam	76.00	76.50	
Fermate	Auburn, 1757	Ferbam	76.00	82.00	
Du Pont-Fermate	Elmira, 990	Ferbam	76.00	79.70	
EDCO CORP., ELKTON, MD.					
Edco 1-D	Riverhead, 1475	*PARATHION*	1.00	0.81‡	
G.L.F. SOIL BUILDING SERVICE, ITHACA, N. Y.					
G.L.F. No. 5	Batavia, 1275	Parathion	1.00	1.02	
G.L.F. No. 78	Batavia, 1276	Zinc dimethyl dithiocarbamate	7.00	13.09	
		Rotenone	1.00	P	
		Other cube resins	2.00	P	
HAMMOND PAINT AND CHEMICAL CO., BEACON, N. Y.					
Hammonds Stabilized 75 Dust	Canajoharie, 641	Beta thiocyano ethyl esters of alipathic acids	0.75	P	
		Cube resins	1·25	P	
		Rotenone	——	P	

NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
Niagara Phos Kil 1 Dust	Middleport, 1297	Parathion	1.00	1.00	
Niagara Phos Kil Spray Code 66	Middleport, 1305	Parathion	15.00	15.00	
Niagara Hexamite Code 997	Middleport, 1310	Tetraethyl pyrophosphate	40.00	44.00	
		Other related organic phosphate esters	60.00	P	
ROTENONE PRODUCTS CO., EAST ORANGE, NEW JERSEY					
Rotecide Extra Garden Spray	Albany, 648	Rotenone	1.00	P	
		Cube extractives	1.50	P	
		Beta thiocyano ethyl esters of alipathic acids	5.00	P	
		Polymethylated naphthalenes	40.00	——	
		Non-volatile oils	32.50	——	
		Camphor oil	6.00	——	
		Sorbitan monooleate	14.00	——	
PLANT PRODUCTS CORP., BLUE POINT, NEW YORK					
Planthion 15%	Blue Point, 1460	O-O diethyl O-p-nitro phenylthiophosphate	15.00	15.30	
SEARS, ROEBUCK AND CO., CHICAGO, ILL.					
Cross Country Garden Spray	Elmira, 1802	Zinc ethylene bisdithiocarbamate (from parzate)	9.70	10.36	Interferences made the rotenone test inconclusive
		Rotenone	1.50	——	
		Other cube extractives	3.00	——	
Cross Country Garden Spray	Newburgh, 1375	Zinc ethylene bisdithiocarbamate	9.70	10.31	
		Rotenone	1.50	P	
		Other cube extractives	3.00	P	
Cross Country Garden Spray	Buffalo, 1258	Zinc ethylene bisdithiocarbamate	9.70	10.76	
		Rotenone	1.50	P	
		Other cube extractives	3.00	P	

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TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED. PER CENT	FOUND, PER CENT	REMARKS
		B. Organic: 6. Plant Insecticides			
ACME WHITE LEAD AND COLOR WORKS, DETROIT, MICH.					
Acme Garden Guard	Troy, 1559	Rotenone	0.25	P	
		Other cube resins	1.50	P	
ATLAS POWDER CO., WILMINGTON, DEL.					
N.N.O.R. Garden Spray	Granville, 1551	Rotenone	1.00	P	
		Derris extractives	1.90	P	
		Tech. mannitan monolaurate	97.00	——	
JOHN BACON CORP., GASPORT, N. Y.					
¾ of 1% Rotenone Dust	Gasport, 1286	Resins including ¾% rotenone	2.00	——	
		Rotenone	——	P	
1% Rotenone Dust	Gasport, 1283	Resins including 1% rotenone	2.50	——	
		Rotenone	——	P	
BONIDE CHEMICAL CO., UTICA, N. Y.					
Bonide Insect Dust	Canandaigua, 1703	Rotenone	0.75	P	
		Other cube resins	1.50	P	
Bonide Rotosyn Insect Dust	Salem, 649	Cube resins	1.00	P	
		Methyl naphthalenes	1.30	P	
		Rotenone	——	P	
Bonide Ryatox-Contains Ryania	Canandaigua, 1702	Powdered stem of ryania speciosa	40.00	——	Not tested
CALIFORNIA SPRAY AND CHEMICAL CORP., ELIZABETH, N. J.					
Botano-R Dust No. 100	Lyndonville, 1267	Rotenone as cube	1.00	P	
		Other resins of cube	1.00	——	

CARBOLA CHEMICAL CO., INC., NATURAL BRIDGE, N. Y.				
C.C.C. Garden Rote	Waterloo, 1711	Rotenone	0.75	P
		Other derris extractives	2.00	——
CHIPMAN CHEMICAL CO., BOUND BROOK, NEW JERSEY				
Cubor Plant Insecticide	Ontario Center, 1722	Rotenone	2.50	P
		Other active deeris and or cube extractives	5.00	P
C. H. DAVIS CO., ROME, N. Y.				
Davis Garden Insect Killer	Glen Falls, 1555	Rotenone	2.00	P
		Derris extractives	6.00	P
		Pyrethrins	1.20	P
		Fatty acid soaps	16.00	——
		Pine oil	28.00	——
E. I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL.				
¾% Rotenone Dust	Lyndonville, 1262	Rotenone	0.75	P
		Other cube resins	1.20	P
1% Rotenone Dust	Lyndonville, 1263	Rotenone	1.00	P
		Other cube resins	1.60	P
G.L.F. SOIL BUILDING SERVICE, ITHACA, N. Y.				
G.L.F. Dust No. 26	Batavia, 1273	Rotenone	0.75	P
		Other cube resins	1.50	P
G.L.F. Dust No. 27	Batavia, 1277	Rotenone	1.00	P
		Other cube resins	2.00	P
G. C. HANFORD MFG. CO., INC., SYRACUSE, N. Y.				
Vitaspra Plant Insecticide	Hudson Falls, 1552	Rotenone	1.10	P
		Pyrethrins	0.80	P
		Cube resins	1.70	P
		Pine oil	25.80	——
		Sorbitan oleate	17.20	——

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TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
Rotenone Bearing Dust	Middleport, 1299	Rotenone	1.00	P	
Code 345		Other cube resins or extractives	1.00	P	
Rotenone Bearing Dust	Middleport, 1308	Rotenone	1.00	P	
Code M-596 (y)		Other cube resins or extractives	1.00	——	
B. G. PRATT CO., HACKENSACK, N. J.					
DX with Rotenone	Canandaigua, 1741	Rotenone	——	P	
		Active base	——	——	
SEARS, ROEBUCK AND CO., CHICAGO, ILL.					
Cross Country Insect Dust	Newburgh, 1378	Rotenone	0.75	P	
		Other cube resins	1.50	P	
THE SHERWIN-WILLIAMS CO., CLEVELAND, OHIO					
Rote-Dust	Geneva, 1728	Rotenone	0.75	P	
		Other cube resins	1.50	P	
TOBACCO BY-PRODUCTS AND CHEMICAL CORP., LOUISVILLE, KY.					
Black Leaf Forty	Scotia, 644	Nicotine	40.00	41.50	
WRIGHT SUPPLY CORP., RIVERHEAD, N.Y.					
Quality Unexcelled Dusts	Riverhead, 1471	Rotenone	1.00	P	
ANDREW WILSON, SPRINGFIELD, N. J.					
Wilsons Plant Spray	Albany, 647	Nicotine	1.60	1.95	
		Potassium oleate	7.00	P	
		Emulsified oils	2.00	P	

II. HERBICIDES

A. Inorganic: 7. Weed Killers

American Chemical Paint Co., Ambler, Pa. Weedone Crab Grass Killer	Glen Falls, 1556	Potassium cyanate	55.00	56.00	

B. Organic: 7. Weed Killers

G.L.F. Soil Building Service, Ithaca, N. Y. "Weed Killer-66"	Cato, 395	Triethanolamine salt of 2,4-dichlorophenoxy-acetic acid	63.00	65.97	
O. E. Linck Co. Inc., Clifton, N. J. Tat Weed-C-Lect Weed Killer	Binghamton, 1000	Triethanolamine salt of 2,4-dichlorophenoxy-acetic acid	8.20	9.07	
		2,4-dichlorophenoxy-acetic acid	5.00	5.53	
Niagara Chemical Div., Middleport, New York Niagara Dry Am Sol	Middleport, 1291	Diethylamine salt of 2,4-dichlorophenoxyacetic acid	98.50	——	
		2,4-dichlorophenoxy-acetic acid	74.00	76.20	
Ralston Purina Co., St. Louis, Mo. Purina Weed Killer For Lawns	Geneva, 1727	2,4-dichlorophenoxy-acetic acid	50.00	53.20	
Rex Research Corp., Toledo, Ohio Dandy Lion Weed Killer 2,4-D	Ontario Center, 1721	2,4-dichlorophenoxy-acetic acid	——	33.88	Misbranded, percentage active ingredient not listed
Sears, Roebuck and Co., Chicago, Ill. Cross Country Weed Killer	Elmira, 1803	Triethanalamine salt of 2,4-dichlorophenoxy-acetic acid	23.45	25.55	
		2,4-dichlorophenoxy-acetic acid	14.00	15.38	

P Denotes presence of guaranteed materials.

TABLE 2.—*Continued.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED PER CENT	FOUND, PER CENT	REMARKS
Weed Killer Powder Garden Master	Newburgh, 1380	Sodium-2,4-dichlorophenoxyacetic acid	——	94.20	
		2,4-dichlorophenoxyacetic acid	83.00	85.00	
III. HOUSEHOLD PESTICIDES					
8. Miscellaneous Insecticides					
BONIDE CHEMICAL CO., UTICA, N. Y.					
Bonide R-Ton Fly Spray	Canandaigua, 1707	B'butoxy B'thiocyano diethyl ether	3.10	5.88	
		Petroleum distillate	96.90	——	
Bonide Ant-Dust	Canandaigua, 1706	Tech. chlordane	5.00	5.22	
Sanaseed	Dunkirk, 342	Strychnine sulfate	0.50	P	
CARBOLA CHEMICAL CO. INC., NATURAL BRIDGE, N. Y.					
C.C.C. Rat Destroyer	Utica, 1760	Extractives of Red Squill	24.00	——	Not tested
COLWELL CHEMICAL CO., LIMA, N. Y.					
Colwell Rat Poison Pellets	Alleghany, 339	*BARIUM CARBONATE*	15.00	6.40‡	
No-Odor Rat Poison Pellets	Camillus, 399	Barium carbonate	——	——	Misbranded; percentage active ingredients not given
C. H. DAVIS CO., ROME, N. Y.					
So-Bos-So Kilfly	Williamson, 1708	DDT	50.00	50.14	
O. D. DAVIS CHEMICALS CO., ERIE, PA.					
Rat-X	Sherman, 344	Alpha-Naphtyl thiourea	1.00	1.30	
THE DILL COMPANY, NORRISTOWN, PA.					
Duz-Kill-Kills Roaches	Naples, 1719	Water white petroleum oil	——	P	
		Chlordane, tech.	——	2.40	
		Piperonyl butoxide	——	——	
		PYRETHRINS	——	0.0‡	Less than 0.01% pyrethrins.

Dill Spray Kills Moths	Naples, 1720	Water white petroleum oil	——	——	
		Sesame oil extractives	——	——	
		Pyrethrins	——	P	
Dills D-A Insecticide	Ontario, 1730	Water white petroleum oil	——	——	
		DDT	5.00	7.39	
		Beta thiocyano ethyl ester of alphatic acids	——	——	
		Beta butoxy beta thiocyano diethyl ether	——	——	
		Organic thiocyanates	——	P	
		Perfume	——	——	
EXTERMINATING PRODUCTS CORP., Livonia, N. Y.					
Phillips 38–48 Rat-Rap Pellets	Lyons, 1747	*BARIUM CARBONATE*	15.50	1.60‡	
FIRST AID REMEDIES CO., BUFFALO, 17, N. Y.					
Rat Slugs—Atomic Death to Rats	Honeoye, 1729	Rat slugs contains sea onions (scilla), middlings, meat by-products, sugar, starch and talc.	——	——	Misbranded, percentage active ingredients not listed
GENERAL DRUG CO., NEW YORK CITY, NEW YORK					
Zelio Paste for Killing Rats, Mice and Other Rodents	Allegany, 338	Thallous sulfate	2.50	2.80	
GENERAL INSECTICIDE CO., UTICA, N.Y.					
General Rat Syrup	Caywood, 1750		——	——	Misbranded; name of active ingredients not given
GULF OIL CORP., GULF OIL REF. CO., PITTSBURGH, PA.					
Gulf Spray with Pyrethrins and DDT	Bluff Point, 1739	Pyrethrins	0.12	P	
		DDT	0.25	0.47	
		Methyl salicylate	0.005	——	
		Hydrocarbon distillate	99.625	——	
G. C. HANFORD MFG. CO., INC., SYRACUSE, N. Y.					
Ratu	Cato, 394	*ANTU (ALPHANAPHTHYL THIOUREA)*	10.00	4.30‡	

‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.
P Denotes presence of guaranteed materials.

TABLE 2.—*Concluded.*

MANUFACTURER AND BRAND NAME	PLACE TAKEN AND SERIAL NUMBER	ACTIVE INGREDIENTS	GUARANTEED, PER CENT	FOUND, PER CENT	REMARKS
THE HOLMERDEN CO., STAMFORD, CONN.					
Anti Ant	Hudson Falls, 1563		37.50	——	Misbranded; names of active ingredients not listed
HYDRO FUMIGATING SERVICE, JAMESTOWN, N. Y.					
Hydro Mice Bait	Brocton, 341	Thallium sulfate	1.00	0.89†	
IDEAL REMEDIES CO., BUFFALO, N. Y.					
Ideal Rat and Mouse Killer	Seneca Falls, 1732	Fortified red squill	10.00	——	Not tested
JONES PRODUCTS CO., MILWAUKEE, WISC.					
Jones Fly Killer	Salamanca, 345	Arsenic as metallic	30.00	32.10	
		Water-soluble arsenic	30.00	0.84	
EDGAR A. MURRAY CO., DETROIT, MICH.					
Roach Doom	Binghamton, 1811	Sodium fluoride	80.00	87.34	Calculated from fluorine found
		Fluroine		83.92	
NIAGARA CHEMICAL DIV., MIDDLEPORT, NEW YORK					
Niagara Household Spray	Middleport, 1309	Gamma isomers of benzene hexachloride	0.75	——	Total chlorine calculated from percentage benzene hexachloride and DDT guaranteed
		Other isomers of benzene hexachloride	0.15	——	
		DDT	0.50	——	
		Organic thiocyanate	0.50	0.67	
		Petroleum hydrocarbons	98.10	P	
		Total chlorine	0.90	1.13	
Niagara Household Spray	Elmira, 993	Gamma isomers of benzene hexachloride	0.75	——	Total chlorine calculated from percentage benzene hexachloride and DDT guaranteed
		Other isomers of benzene hexachloride	0.15	——	

		DDT	0.50	——	
		Organic thiocyanate	0.50	0.53	
		Petroleum hydrocarbons	98.10	P	
		Total chlorine	0.90	0.98	
ONEIDA CHEMICAL CO., UTICA, N. Y.					
Rat Bombs	Canandaigua, 1740	Red squill compound	——	——	Not tested
JOHN OPILZ INC., LONG ISLAND CITY, N.Y.					
J. O. Paste	Binghamton, 1810	Phosphorus	1.38	1.38	
WILLIAM PETERMAN INC., NEWARK, N.J.					
Peterman Quick Kill for Roaches	Binghamton, 1806		——	——	Misbranded; names of active ingredients not listed
S. PFEIFFER MFG. CO., ST. LOUIS, MO.					
Kilall Powder	Binghamton, 1809	Sodium fluoride	27.00	30.47	
		Borax	33.00	31.80†	
		Fluorine as metallic	——	13.79	
RODENT CONTROL FUND, MASS. STATE COLLEGE, AMHERST, MASS.					
U. S. Fish and Wild Life Service Field Mouse Rotenticide	Marathon, 1754	Phosphorus	14.66	17.77	
SEARS, ROEBUCK AND CO., CHICAGO, ILL.					
Cross Country Ant Powder	Elmira, 1805	*TECH. CHLORDANE*	5.00	3.20‡	Adulterated and misbranded;
		PARATHION	——	0.44	chlordane seriously below guarantee; parathion found but not guaranteed
Cross Country Ant Powder	Buffalo, 1257	*TECH. CHLORDANE*	5.00	3.27‡	Adulterated and misbranded;
		PARATHION	——	0.41	parathion found but not guaranteed
Cross Country Ant Powder	Newburgh, 1376	*TECH. CHLORDANE*	5.00	3.40‡	Adulterated and misbranded;
		PARATHION	——	0.44	parathion found but not guaranteed
SPENCER BROS. INC., DUNDEE, N. Y.					
Fli-Fate	Rushville, 1909	DDT	5.00	6.17	
		Pyrethrum extract	3.00	——	
		Pyrethrins	——	P	

†Designates those samples which do not fully meet their guarantee but are less than 5 per cent deficient.
‡*ITALIC* caps denote those samples which are more than 5 per cent deficient relative to their guaranteed contents of one or more active ingredients.
P Denotes presence of guaranteed materials.